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July 27, 2012

Kristin Vahl Pollot  
City of Pittsburg  
Planning Department  
65 Civic Avenue  
Pittsburg, CA 94565

Subject: WesPac Pittsburg Energy Infrastructure Project DEIR

Dear Ms. Pollot

Bay Area Air Quality Management District (District) staff has reviewed the City's Draft Environmental Impact Report (DEIR) prepared for the proposed modernization and reactivation of an existing oil storage and transfer facility. We understand the project site consists of 125 acres, up to 16 storage tanks, a dock and marine terminal, and will utilize existing pipelines to connect to nearby refineries. This project will require an Authority to Construct and a Permit to Operate issued by the District. We submit the following comments as a Responsible Agency under CEQA (§15096) regarding the air quality analysis.

**Construction Analysis**

The DEIR states that construction activities would result in significant and unavoidable impacts for NOx. Staff supports the inclusion of **Mitigation Measure AQ-1** which includes a variety of standard measures that the District recommends all construction projects incorporate to reduce fugitive dust from construction activities and diesel exhaust from off-road equipment. Staff recommends the City add further feasible measures that reduce NOx emission. These include:

- Prohibit diesel generators where access to the electrical grid is available
- Require electrification of motors, pumps, and other power tools whenever feasible
- Require the use of biodiesel or other alternative fuels in diesel generators, construction equipment, and/or off-road vehicles
- Require the use of diesel particulate filters on equipment where Tier II engines are not available
- Minimize the idling time of diesel powered construction equipment to two minutes

In addition, **Mitigation Measure AQ-1** specifies that the construction contractor is required to supply equipment with Tier II engines or newer when possible. If this equipment is not available, the contractor is required to provide documentation. Staff recommends a condition of approval stipulate that only Tier II or newer engines be used because this is assumed in the toxic air contaminant (TAC) analysis. Otherwise, the basis of the construction analysis will have underestimated TAC emissions concentrations and the significance of impacts.

### **Health Risk Assessment**

A health risk assessment (HRA) was prepared to evaluate potential health effects associated with the construction and operation of the proposed project. This included emissions of TACs from construction activities, marine vessels, harbor craft, marine terminal equipment, storage tanks, and other project components such as pipelines. Staff reviewed the HRA and recommends that additional modeling be conducted to accurately characterize the potential impacts. This includes:

- Clearly identify the maximum exposed individual for construction and operational phases
- Include an evenly spaced receptor grid across the project site
- Use a uniform grid across the entire site so contours will match meteorological conditions
- Model emission concentrations along each grid point

The HRA appears to model the construction phase as point sources. However, there is no information regarding the modeling parameters, location of the sources, or the number of point sources that were used to simulate emissions for the entire construction site. Staff recommends:

- All modeling assumptions and input variables be provided for public review
- Reduce default load factors from URBEMIS for off-road construction equipment by 1/3 as recommended by CARB or use updated emission factors from OFFROAD2011
- Use a child breathing rate of 581 L/kg-day for the construction analysis versus the 80<sup>th</sup> percentile breathing rate of 302 L/kg-day, as recommended by OEHHA's Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments
- Model construction emissions as area or volume sources to more accurately characterize emissions and concentrations throughout the construction site

Vessel and tug boat emissions near berth were modeled as an area source of 250,000 square meters. However, this marine terminal is designed for panamex ships that are approximately 300 meters long by 32 meters wide. By modeling marine vessel emissions using an area 26 times larger than the actual dimensions of the ship, the exposure concentrations at downwind sensitive receptors can be inadvertently diluted. Staff recommends:

- Estimate emissions using the actual maneuvering distance of 1 mile from berth
- Reduce the size of volume sources to more closely match the ship dimensions
- Include a map indicating the exact location and size of the volume sources, including tug boats and other harbor craft, with respect to the berth

### **Operational Criteria Pollutant Analysis**

Staff supports the inclusion of **Mitigation Measure AQ-2** which requires NOx and ROG emissions from operational activities to be fully offset. However, staff recommends that the City require the project proponent to reduce emissions on-site prior to purchasing emission reduction credits. This could include retrofitting the marine terminal to provide dock electrification, or "cold ironing", to further reduce emissions from running auxiliary engines for power generation, if feasible. This would also reduce TAC exposure to nearby sensitive receptors while delivery vessels are hoteling.

According to District records, a permit application has not been received, which is needed prior to an Authority to Construct being issued. Based on the project description, other emission types and sources not currently identified in the DEIR may be subject to District regulation. Staff recommends the DEIR include an analysis of hydrogen sulfide, as it is found in crude oil. The DEIR should also discuss and determine if the proposed vapor destruction unit is subject to RACT requirements for thermal oxidizers and if tanker loading operations are subject to Regulation 8, Rule 44 "Organic Compounds: Marine Tank Vessel Operations". In addition, the Prevention of Significance (PSD) and Title V permitting programs generally apply to projects that emit significant amounts of air pollution (250 tons and 100 tons per year of criteria air pollutants, respectively). The DEIR should discuss and determine whether the project is subject to PSD and Title V permitting requirements.

### **Marine Vessel Emissions Analysis**

The DEIR underestimates emissions associated with marine vessels. For permitting, the District accounts for vessel emissions 11 nautical miles off shore at the Bar Pilot Station. Staff recommends that the analysis also use more appropriate emission factors that were developed based on ship activity from the Port of Los Angeles Inventory of Air Emissions – Volume 1, Technical Report (July 2008) since the auxiliary boilers are on ocean-going vessels. These emission factors would be more accurate than factors provided in the EPA publication AP-42: Fuel Oil Combustion. This document can be downloaded from [http://www.portoflosangeles.org/DOC/REPORT\\_Air\\_Emissions\\_Inventory\\_Volume1.pdf](http://www.portoflosangeles.org/DOC/REPORT_Air_Emissions_Inventory_Volume1.pdf).

District staff is available to assist the City in addressing these comments. If you have any questions, please do not hesitate to contact Ian Peterson, Environmental Planner, at (415) 749-4783 or at [ipeterson@baaqmd.gov](mailto:ipeterson@baaqmd.gov).

Sincerely,



Jean Roggenkamp  
Deputy Air Pollution Control Officer

Attachment

cc: BAAQMD Chairperson John Gioia  
BAAQMD Director David Hudson  
BAAQMD Director Mary Piepho  
BAAQMD Director Mark Ross